

from a field in one season. Twenty pounds of seed are required for an acre. An excellent species for trial in the Southern States, wherever cane and cotton may be grown." (*Jared G. Smith.*)

1501. TRIFOLIUM HYBRIDUM.

Alsike clover.

From France. Received through Mr. W. T. Swingle, December, 1898. (4 packages.)

"*Trèfle hybride*" (hybrid clover). "*Trèfle d'Alsike.*"

"A perennial, in size and general appearance intermediate between white and red clover. It is better adapted than any other species in general cultivation to wet meadows or marshy lands, but because of its shallow root system will not withstand drought. The branching, leafy stems grow 1 to 3 feet high and the young flower heads are at first white and later become rose-colored. Its leaves are slightly bitter, and on this account the forage is not so well liked by stock as that of red or white clover; but it will grow on lands which are too wet for the other species, thriving even in marshy places where the subsoil is impervious to water and the drainage is bad. It may also be cultivated in the far north and in high altitudes, as it has the power of withstanding severe cold. The forage is succulent and more difficult to cure for hay than red clover. The air-dried hay contains from 10 to 13 per cent of crude protein. It is a very good honey plant for bees. The seed weighs 65 pounds to the bushel, and 12 pounds will sow an acre." (*Jared G. Smith.*)

1502. LESPEDeza STRIATA.

Japan clover.

From France. Received through Mr. W. T. Swingle, December, 1898. (2 packages.)

"*Trèfle du Japon.*"

"An annual legume, native of China, which was accidentally introduced into South Carolina about thirty-five years ago, and has become naturalized throughout the Southern States as far west as Texas. Because of its many good qualities it is the most highly esteemed of all forage plants for this region. It will grow on worn fields and sterile or exhausted soils, spreading rapidly over the surface, preventing further washing of the land. In such localities it grows prostrate on the surface, forming a dense mat of turf. In rich soils, especially such as are calcareous, it grows 20 or 30 inches high, and when mown, makes an excellent quality of hay, greedily eaten by all kinds of stock. It is distinctively a summer forage, appearing about the first of June, and dying down at the first touch of frost. In sandy soils it suffers greatly from hot weather. The acreage of meadow and pasture lands devoted to this clover is increasing rapidly. Its roots penetrate deeply into the soil and, in common with most other leguminous plants, Japan clover, by means of the tubercles on its roots, collects nitrogen from the air, so that because of its steady and rapid growth it is one of the best crops to turn under as green manure, and is one of the best for renovating old fields. The feeding value is high, though less than that of clover and cowpeas. Seed should be sown broadcast at the rate of half a bushel to the acre, either in autumn with oats or winter rye, or alone in spring." (*Jared G. Smith.*)

1503. ANTHYLLIS VULNERARIA.

Kidney-vetch.

From France. Received through Mr. W. T. Swingle, December, 1898. (18 packages.)

"*Trèfle jaune des sables*" (yellow sand clover).

"A low perennial legume, which is found wild over a large part of Europe. It grows naturally in very dry and sterile soils along the roadsides, wherever the soil is thin and the subsoil calcareous. It is recommended as furnishing a palatable though scant forage on dry, calcareous soils, in places that are too poor to support even white clover. The product of the first year is small, so that it is only a profitable crop when sown with grain. The second year the plant throws up tall stems, often 3 or 4 feet high. It is not recommended to sow this crop in the United States, except experimentally upon such barren soils as have been described, and then only after the better species have been tried and found to be failures." (*Jared G. Smith.*)

1504. VICIA SATIVA.

Vetch.

From France. Received through Mr. W. T. Swingle, December, 1898. (9 packages.)

"*Vesce commune de printemps*" (common spring vetch).

"An annual trailing herb, 12 to 20 inches high, with 4 to 5 angled stems, simple or